App. No. 10/523,102
Office Action Dated October 18, 2005

IN THE CLAIMS

Amendments To The Claims:

This listing of claims will replace all prior versions and listings of claims in the application.

Claims 1, 9, 10, 11, 12, 14 and 17 are amended.

Claims 18-19 are canceled without prejudice or disclaimer.

Claim 21 is new.

Listing of Claims:

1. (Currently Amended) A niobium capacitor comprising:

an anode with niobium as its main component; and

a dielectric layer formed on said anode,

wherein ~~the junction region between~~ said anode ~~and said dielectric layer~~ contains manganese in an amount sufficient for stabilizing the dielectric layer.

2. (Original) A niobium capacitor according to claim 1, wherein said dielectric layer contains Nb_2O_5.

3. (Original) A niobium capacitor according to claim 1, wherein said anode has a surface layer with niobium oxide as its main component.

4. (Original) A niobium capacitor according to claim 3, wherein said niobium oxide is an interstitial compound.

5. (Original) A niobium capacitor according to claim 1, wherein said anode has a surface layer with niobium nitride as its main component.

6. (Original) A niobium capacitor according to claim 5, wherein said niobium nitride is an interstitial compound.

7. (Original) A niobium capacitor according to claim 1, wherein said anode is a porous sintered body of a compressed niobium-containing powder.

8. A niobium capacitor according to claim 7, wherein said niobium-containing powder has a surface layer containing manganese.

9. (Currently Amended) A niobium capacitor according to claim 1, wherein ~~said~~ a junction region between said anode and said dielectric layer contains NbO and Mn.

10. (Currently Amended) A niobium capacitor according to claim ~~1~~ 9, wherein said junction region contains MnO_2.

11. (Currently Amended) A niobium capacitor according to claim ~~1~~ 9, wherein said junction region contains 0.1 to 10wt% of manganese.

12. (Currently Amended) A niobium capacitor according to claim ~~1~~ 9, wherein said dielectric layer is formed by anodic oxidation on said anode, and said junction region contains 0.1 to 3wt% of manganese.

13. (Original) A niobium capacitor according to claim 1, further comprising a solid electrolyte layer formed on said dielectric layer, said solid electrolyte layer consisting of MnO_2.

14. (Currently Amended) A method for manufacturing a niobium capacitor, comprising the steps of:

forming an anode containing niobium ~~and manganese~~; and

forming a dielectric layer on said anode;

wherein the step of forming said anode is performed to cause said anode to additionally contain manganese in an amount sufficient for stabilizing said dielectric layer.

15. (Original) A method for manufacturing a niobium capacitor according to claim 14, wherein the step of forming said anode involves forming a compressed molded product made of a niobium-containing powder containing in the surface layer thereof 0.1 to 10wt% of manganese, and then sintering said compressed molded product.

16. (Original) A method for manufacturing a niobium capacitor according to claim 14, wherein the step of forming said anode involves forming a sintered body made of niobium-containing powder, and then doping said sintered body with manganese.

17. (Currently Amended) A method for manufacturing a niobium capacitor, comprising the steps of:

forming an anode containing niobium, and

forming a dielectric layer containing niobium oxide as its main component and 0.1 to 10wt% of manganese;

wherein in the step of forming said dielectric layer, said anode is oxidized in a vapor-phase atmosphere containing manganese.

18-19. (Canceled)

20. (Original) A method for manufacturing a niobium capacitor according to claim 17, wherein said anode contains any one of a niobium, niobium oxide and niobium nitride, as its main component.

21. (New) A niobium capacitor comprising:

an anode with niobium as its main component; and

a dielectric layer formed on said anode,

wherein the junction region between said anode and said dielectric layer contains manganese;

wherein said anode has a surface layer with niobium nitride as its main component; and

wherein said niobium nitride is an interstitial compound.